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Communications.

THE NEW PHILOSOPHY.

The Correlation and Conservation of Forces.—
Modern Views of Dynamics.

A paper read before the Muskingum County Medical Society.

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No more interesting or important investigation ever occupied the human mind, than the inquiry into the unknown cause or causes of known and recognized phenomena. These are diverse, intricate, and numerous. Some impress the senses by their beauty, some by their utility, some strike the beholder with terror, others with awe, and all as wonderful. Viewed in any aspect, whether as a scientific truth, or in its influence on man's destiny here and hereafter, upon the conclusions arrived at depend stupendous consequences.

The ancients made no natural or intellectual science, because they ignored facts. They assumed as their starting-point, that the question of forces, or dynamics, was to be solved by an intellectual process of reasoning, and not by experiment. Starting out in the inquiry with such an assumption, their processes and conclusions were necessarily erroneous. To account for the movements of the heavenly bodies, they assumed the existence of solid revolving crystalline spheres to which they were attached, and by them drawn or carried around in their courses. Of course, from such postulates scientific truth was never to be extracted.

The corner-stone of science was roughly blocked out by NEWTON, who in astronomical science substituted for the crystalline spheres and epicycles of a later date, the immaterial force of gravitation. This was a scientific truth; but to make it available a century of intellectual advancement was requisite to reach another scientific truth, which completed the corner-stone of NEWTON, and laid it on an imperishable and unchangeable foundation. What the intellectual labors of man had hitherto failed to demonstrate, was made

evident by the scales of LAVOISIER. The principle he announced was the *indestructibility of matter*. Chemistry, having this secure foundation, has since made rapid strides up to this moment. Philosophy, prior to LAVOISIER, assumed that matter could be destroyed; as when the chemist operated on matter, what he could not conveniently account for was assumed to have been lost or destroyed. On such a basis, chemistry could not and did not make any substantial advance. It was only after the indestructibility of matter was assumed and demonstrated, that chemistry could take its position among the sciences.

Another long era elapsed before another scientific truth was established, of still greater importance than those of NEWTON and LAVOISIER. Forces were recognized, but like matter before LAVOISIER, it was assumed that force could be and was destroyed. Dynamics could make no progress, having no secure foundation. BENJAMIN THOMPSON, born in Woburn, Mass., in 1753—afterward known as Count RUMFORD—substantially demonstrated the indestructibility of force as early as the close of the 18th century.

Being in advance of the intellectual development of the age, it was unheeded. It remained for a German physician, while engaged in laborious daily practice in Heilbron, to announce and demonstrate the *indestructibility of force*. Dr. J. R. MAYER was born at Heilbron, Germany, in 1814. In 1842, he published his first paper on the "Forces of Inorganic Nature;" his second paper, entitled, "On Organic Motion and Nutrition," in 1845; "On Celestial Dynamics," in 1848; and "The Mechanical Equivalent of Heat," in 1851. GROVE, TYNDALL, and JOULE, in England, have contributed largely to confirming and establishing the great principle first definitely announced by MAYER. Stated in its most comprehensive terms, it is that "No force is ever destroyed or lost, but is correlated or conserved in some other form of force."

Heat, light, electricity, magnetism, etc., etc., are no longer to be regarded as substantive and independent existences—subtile fluids with peculiar properties—but simply as modes of motion in ordinary matter, forms of energy which are capable of mutual conversion.

Heat is a mode of energy manifested by certain effects. It may be transformed into electricity, which is another mode of force, producing different effects. Or the process may be reversed, electricity disappearing and heat reappearing.

Again: Mechanical motion, which is a motion of masses, may be transformed into heat or electricity, which is held to be a motion of the atoms of matter; while by a reverse process, the motion of atoms, that is, heat or electricity may be turned back to mechanical motion. Thus a portion of the heat generated in the locomotive is converted into the motion of the train, while by the application of the brakes, the motion of the train is changed back again into the heat of friction.

These mutations are rigidly subject to the laws of quantity. A given amount of one force produces a definite quantity of another; so that power, or force, or energy, like matter, can neither be created nor destroyed. Though ever changing form, its total quantity in the universe remains constant and unalterable. Every manifestation of force must have come from some pre-existent equivalent force, and must give rise to a subsequent and equal amount of some other force.

A perpetual motion, or a machine that should create its own force, and thus go on forever, though sought after with more diligence than any other object by man, was never discovered, because it was a philosophical impossibility; and the efforts of those who so patiently labored to discover it, are so many demonstrations of the persistence of force.

When, therefore, a force or effect appears, we are not at liberty to assume that it was self-originated or came from nothing. When, on the contrary, a force disappears, we are forbidden to conclude that it has been annihilated. We must search whence it came, and whither it has gone; that is, what produced it, and what effect it has itself produced. These relations among the modes of energy are currently known as the *correlation and conservation of force*. The word correlation used in reference to forces, means that they are mutually interchangeable or convertible, the one into the other. Conservation means to preserve from loss, decay, or diminution.

Some writers on the new philosophy use the word, *persistence* instead of *correlation and conservation*. Persistence, so used, means the continuation of the effect after the cause which gave rise to it disappears or is removed. Either words correctly embody the idea intended to be conveyed, and so may be used indifferently.

The direct meaning of the word force, synonymous with dynamic, is strength, power, or energy. It is used in science, in the absence of a more fitting word, to represent the unknown cause of known and observable phenomena.

In the popular mind, the cause of any phenomena is held to be that which immediately precedes the effect. This conclusion wants the precision required by science. Night succeeds the day immediately, yet the day cannot be regarded as the cause of the night. Again, lifting a flood-gate, the water immediately rushes out. In no scientific sense can the act of lifting the gate be regarded as the cause of the water rushing out. Hence, in the investigation of the forces, the antecedent and succedent do not always bear the relation of cause and effect, as thus understood. Heat may produce electricity; it is the cause of the electricity, and is actually converted into electricity. Conversely, electricity may be changed into heat.

Cause and effect are not convertible terms with antecedence and sequence in the investigation of physical science. It is indeed questionable in fact, whether cause does precede effect. It is more probable they are simultaneous. Cause and effect are not, however, the proper objects of investigation in physical science. The proper objects are facts and relation.

Not only are the modes of force in the inorganic world thus mutually interchangeable, but the same principle is equally applicable to vital phenomena. Human activity in all its forms is brought within the operation of the law. The forces manifested in the living system are of the most varied and unlike character: Mechanical, thermal, luminous, electric, chemical, nervous, sensory, emotional, and intellectual. That these forces are perfectly co-ordinated—that there is some definite relation between them which explains the marvellous dynamic unity of the living organism—does not admit of doubt. That this relation is of the same nature as that which is found to exist among the purely physical forces is equally certain, and this relation is expressed by the term correlation.

From the great complexity of the conditions, the same exactness will not be expected here as in the inorganic field, for this is one of the necessary limitations of all physiological and psychological inquiry. Thus qualified, the proofs of the correlation of nervous and mental forces with the physical are as clear and decisive as for the physical forces alone.

The intellectual operations are also directly correlated with physical activities. As in the inor-

ganic world, we know nothing of forces except as exhibited in matter, so in the higher intellectual realm, we know nothing of mind-force except through material manifestations. Mental operations are dependent on material changes. That no idea or feeling can arise, save as the result of some physical force expended in producing it, may be set down as a fundamental physiological principle. The directness of this dependence is shown by the fact, that any disturbance of the train of cerebral transformations disturbs mentality, while the arrest destroys it.

The correlation here, as in the inorganic forces, is quantitative; other things being equal, there is a relation between the size of a nerve apparatus and the amount of mental action of which it is capable. Brain activity is dependent on the vigor of the circulation. If the heart's action ceases, total unconsciousness ensues; if it is enfeebled, mental action is low; if quickened, mentality rises, even to delirium, when cerebral activity becomes excessive.

The equivalence of physical agencies and mental effects is still further seen in the action of various substances, as alcohol, opium, cannabis indicus, nitrous oxide, etc., when absorbed into the blood. Within the limits of their action upon nerve-centres, the effect of each is strikingly dependent on the quantity taken.

There is a constant ratio between antecedents and consequents. How the metamorphosis takes place, how a force existing as motion, heat, light, etc., can become a mode of consciousness, how it is possible for aerial vibrations to generate the sensation we call sound, or for the forces liberated by the chemical changes in the brain to give rise to emotion—these are mysteries which, in the present state of knowledge, it is impossible to fathom. But they are not profounder mysteries than the transformation of the physical forces into each other. They are not more completely beyond our comprehension than the nature of mind or matter. They have simply the same insolubility as other ultimate questions. We learn, however, that here is one of the uniformities in the order of phenomena.

The law of correlation being thus applicable to human energy, as well as to the powers of nature, it must apply also to society, where we constantly witness the conversion of forces on a comprehensive scale. The powers of nature are transformed into the activities of society. Water-power, wind-power, steam-power, and electricity are pressed into the social service, reducing human labor, multiplying resources, and carrying on numberless industrial processes—indeed, the conversion

of the forces into social activities is one of the chief triumphs of civilization. The universal forces of light and heat are transformed by the vegetable kingdom into the vital energy of organic compounds; and then, as food, are again converted into human beings and human power. The very existence as well as activity of society are obviously dependent on vegetable growth. When that is abundant, population may become dense, and social activities multifarious and complicated; while a scanty vegetation entails a sparse population and enfeebled social action. Any universal disturbance of the physical forces, as excessive rain or drouth, by reducing harvests, is felt throughout the entire social organization.

In a dynamical point of view, there is a strict analogy between the individual and social economies, the same law of force governs both. In the individual, the amount of energy he possesses at any given time is limited, and when consumed for one purpose, it cannot of course be had for another. An undue demand in one direction involves a corresponding deficiency elsewhere. For example, excessive action of the digestive system exhausts the muscular and cerebral systems; while excessive action of the cerebral is at the expense of the muscular and digestive energies. If the fund of power in the growing constitutions of children is over-drawn in any special channel, as is often the case with excessive stimulation of the brain, the undue abstraction of energy from other portions of the system is sure to entail some form of physiological disaster. So with the social organism, its forces being limited, there is but a definite amount of power to be consumed in the various social activities. Its appropriation in one way makes its employment in another impossible; and it can only gain power to perform one function by the loss of it in other directions.

But the new law of force has still higher bearings. The condition of humanity and the progress of civilization are direct results of the forces by which men are controlled. What we term the moral order of society implies a strict regularity in the action of these forces. Crimes, and even the modes of crime, are observed to occur with a uniformity which admits of their prediction. Each period in the progress of civilization may therefore be said to have its definite amount of morality and justice. It has been maintained, for instance, with good reason, that the degree of liberty a people is capable of in any given age is a fixed quantity, and that artificial extension of it in one direction is sure to bring about a limitation of it in some other direction. French revolutions show scarcely any more re-

spect for individual rights than the despotisms they supplant, and French electors use their freedom to put themselves again in slavery. So in those communities where state restraint is feeble, we may expect to find it supplemented by the sterner restraints of public opinion. But society, like the individual, is progressive. Although at each stage of individual growth the forces of the organism, physiological, intellectual, and passion, have each a certain definite amount of strength, yet these ratios are continually changing, and it is in this change that development essentially consists. So with society, the measured action of its forces gives rise to a fixed amount of morality and liberty in each age, but the amount increases with social evolution. The savage is one in whom certain classes of feelings and emotions predominate, and he becomes civilized just in proportion as these feelings are replaced by others of a higher character. Yet the activities that determine human advancement are various. Not only must we regard the physiological forces, or those pertaining to man's physical organization or capacities, and the psychological, or those resulting from his intellectual and emotional constitution; but the influences of the external world and those of the social state are likewise to be considered. Man and society, therefore, as viewed by the eye of science, present a series of vast and complex dynamical problems, which are to be studied in the future, in the light of the great law by which, we have reason to believe, all forms and phases of force are governed.

There are some, perhaps many, who deplore what they regard as the materializing tendencies of modern science. They maintain that this profound and increasing engrossment of the mind with material objects, is fatal to all refining and spiritualizing influences. The history of scientific thought not only fails to justify this opinion, but proves the reverse to be true. It shows that the tendency of this kind of inquiry, is ever from the material toward the abstract, the ideal, the spiritual. Appeal may be made to the oldest and best developed of the sciences for confirmation of this statement. The earlier explanations of the celestial movements were thoroughly and grossly material, and all astronomic progress has been toward more refined and ideal views. At length the labors of astronomers, terminating with Newton, struck away the crude devices of invisible spheres, spicules, etc., and substituted the action of a universal immaterial force. The course of astronomical science has thus been on a vast scale, to withdraw attention from the material and sensible, and fix it on the invisible

and supersensuous. It has shown that a pure principle forms the immaterial foundation of the universe. From the barest materiality we rise at last to a truth of the spiritual world, of so exalted an order, that it has been said to connect the mind of man with the Spirit of God.

The tendency thus illustrated by astronomy, is characteristic in a marked degree of all modern science. Scientific inquiries are becoming less and less questions of matter, and more and more questions of force. Material ideas are giving place to dynamic ideas; while the great agencies of change, with which science has to deal, light, heat, electricity, magnetism, gravitation and affinity, which have been regarded as kinds of matter—imponderable elements—in distinction from other material elements—these notions must now be regarded as outgrown and abandoned, and in their place, we have an order of purely immaterial forces.

The modern modes of material and mental intercommunication, represented in railways and telegraphs, though commonly regarded as physical improvements of our own age, are only so from a very narrow and limited point of view. It is within the memory of many still living, that the means of intercommunication between different portions of the world, and the diverse parts of the same country, were wholly physical, or dependent on purely natural forces, as wind, gravitation and animal power.

It is but little over half a century since all travel and transportation was effected by means of animals, wind-power, or the currents of streams. On land, wheeled or sliding vehicles were drawn by animal power exclusively. To increase the general result of a given expenditure of force by animals, canals and slack-water improvements were constructed.

But these were far from satisfying man's longing for the ideal and immaterial. The invention of the movable, or locomotive steam engine, gave rise to the vast system of railways now so widely spread and spreading over the whole globe. The mechanics who fabricate, and the engineers who operate them, speak of the engines themselves as the power or force. The massive and symmetrical proportions of steam engines, may challenge our admiration for mechanical skill and ingenuity, but they were called into existence to resist, confine, and subdue to man's use, the immaterial force of heat, which, in this particular instance, finds watery vapor its most convenient vehicle to produce the desired dynamical results. Efforts, not yet wholly successful, have been made to dispense with water, and use heat, with the atmos-

where as a vehicle, in engines. That they will be successful is strongly probable.

So of the electric telegraph, this same force of heat correlated as magnetism, is made use of to obtain motion in the molecules of matter, in contradistinction to the masses of matter, as in the railway train. This motion in the telegraph, in the atomic structure of matter, is made use of through certain signals or sounds, to annihilate distance in the communication of mind with mind widely separated. No physical obstacle seems to arrest telegraphic extension. Alike through the regions of eternal snow and ice, under the burning tropics, and across oceans, its cables have been uncoiled, until at no distant day the remotest parts of earth will be in magnetic communication.

Viewed in this light, neither the railway nor electric telegraph, can be classed as physical improvements only.

[To be continued.]

PHYSIOLOGICAL AND THERAPEUTICAL ACTION OF COD-LIVER OIL.

By A. BISSELL, M. D.,

Of New York.

The discussion of the therapeutical applications of cod-liver oil, started by Dr. JOSEPH ADOLPHUS, of Hastings, Mich., in his able communication in the *REPORTER* of Dec. 8th, 1866, has led me to offer the following remarks on the subject for your columns.

M. BOUCHARDAT, Professor of Hygiene at the Academy of Medicine, Paris, says:

"The minute division of the iodine in cod-liver oil, the particular state in which it exists, must singularly facilitate its absorption by the tissues, and can in this way contribute more than the absolute proportion of this substance to the marked effects which this oil exerts on the animal economy.

"Also, iodine in the oil is not eliminated from the system, AS THE OTHER SOLUBLE PREPARATIONS OF IODINE: in this elementary combination its action is slower, more regular, and more persistent, as it is successively set at liberty in the economy, in proportion as cod-liver oil is gradually decomposed in the blood,"—[*Manuel de Matière Médicale*, page 749.—1856.]

The action of cod-liver oil on the system is a double one; it is nourishing by its fatty elements, and curative by its medicinal bodies—iodine, bromine, and phosphorus, which it naturally contains; and to these three substances must be attributed its superiority over other fats or oils, either animal or vegetable, in the cure of diseases. These facts, discovered and proven by physiologists in their experiments on animals, and confirmed by the experience of physicians in their

daily practice, have been corroborated during the last eight years, in a most illustrative manner, by the administration, to a large number of patients, of a cod-liver oil five times richer in iodine, bromine and phosphorus, than any of the cod-liver oils known before.

Cod-liver oil, as well as other fatty substances, when taken in too large quantities, is apt to disturb the stomach, and derange the functions of the intestinal canal. Only a small quantity can be digested and assimilated, the rest passing off unchanged, producing more or less frequent and abundant alvine evacuations, in which are contained the superfluous oils or fats. Observations prove that the gastric juice has no action whatever on fats or oils, the pancreatic juice being the only body, which, by its emulsive properties, causes the absorption of these substances into the economy; and, therefore, all the oil not emulsified by the pancreatic juice is evacuated by the intestines just as it was taken. The knowledge of this important fact is due to the recent observations of CLAUDE BERNARD, a well known authority in physiology. The oil, once emulsified by the action of the pancreatic juice, is brought into the general current of the circulation as follows: it is first taken up by the chyloferous vessels on the surface of the small intestines, and passing through the mesenteric glands and the thoracic duct, it is discharged in the left subclavian vein, where it mingles with the venous blood returning to the right cavities of the heart. This blood, and the fresh nutritious elements, furnished by the two subclavian veins, are pressed into the lungs to be there oxidized and altered: while passing through the pulmonary circulation, the oily molecules are modified and almost all of them destroyed. The blood, then ready anew for nutrition, passes into the left ventricle, to be thence distributed through the arterial system, carrying along with it, some oily globules left undecomposed during their speedy passage through the lungs, said oily globules to be successively altered in the circulating blood.

The medicinal oil, evidently brought undecomposed into the lungs, and partly in the general current of the circulation, is modified, losing not only its emulsive form, but also its oleaginous characteristics, so as to constitute a part of the arterial blood. Iodine, bromine, and phosphorus, are then set free during the process of nutrition of the tissues, each part of our system appropriating to itself the substance it needs.

The tissues, in contact with the nutritious blood, having a tendency to appropriate to themselves the elements most proper to maintain their

healthy condition or to alter it, when unhealthy, is it not judicious to conclude that the lungs first and then the rest of the system, when affected with bronchitis, phthisis, scrofula, under any variety, or rickets, etc., etc., are highly benefited by the healing and restorative action of the oil and its medicinal constituents, minutely, naturally, and persistently brought into contact with the diseased parts?

That oils and fats are successively carried through the economy, and transformed, as above described, is amply demonstrated by the experiments of the most eminent modern physiologists, such as CLAUDE BERNARD, TIEDEMANN and GME-LIN, LEURET and LASSAIGNE, SANDRAS, BOUCHAR-DAT, BLONDLOT, DELAFOND, GRUBY, L. CORVISART, J. C. DALTON, jr., A. FLINT, R. DUNGLISON, etc.

We must not forget this important point, that oils or fats go into the blood undecomposed and unchanged, being merely infinitesimally divided by the pancreatic juice; but if an oil contains substances, in a close chemical combination, so that they cannot be easily separated, these substances will of course be carried into the blood with the oil itself. This is just the case with a cod-liver oil, which contains a large proportion of IODINE, BROMINE AND PHOSPHORUS. Iodine and bromine have so strong an affinity for oil, that they cannot be separated from it by chemical reagents, not even by strong sulphuric acid. They must, therefore, be carried with the blood and liberated when the oil is transformed, in the process of nutrition, into its elements, and becomes the chief agent by which the heat of the body is maintained. Knowing, then, that to the nutritive property of the oil is superadded the alterative, and stimulating power of a comparatively large quantity of iodine, bromine, and phosphorus, who can doubt the efficacy, as a medicine, of cod-liver oil, if made richer with these substances?

Phosphorus, a part of our brain and bones, is a powerful diffusible stimulant, exciting the nervous organs, heightening the muscular power and mental activity, and relieving the despondency of mind occasioned by many serious diseases.

Iodine and bromine are superior to all alteratives for improving and purifying the depraved nature of the blood. They are the best remedies we possess for checking and controlling the swelling and induration of the glandular system, the ulcerative process in scrofulous complaints, the diseases of the lungs, etc. Obviously, the main point, in such serious affections, is to check and control at once the ulcerative process, and to do so it is of the greatest importance to use PROMPT AND ACTIVE MEDICATION.

Superiority of Iodinized Cod-Liver Oil over Simple Cod-Liver Oil.

Until of late, natural and pure cod-liver oil has been the best remedy, and the one most generally used, with more or less success, in diseases of the lungs when of a tuberculous character. The period of the malady when the oil was first employed, and also the purity and strength of the remedy accounting for the success or failure.

Pure cod-liver oil is more likely to cure consumption, scrofula, rickets, swelling of the glands, etc., in the first stage of the disease; in the second and third stages it mitigates the severity of the symptoms and prolongs the life of the patient, but seldom saves it.

The reason for this difference of action is simply that the pure oil contains iodine, bromine, and phosphorus only in minute quantities, which, although sufficient to cure a disease in the beginning, is not powerful enough when it assumes a graver type.

If we suppose for an instant the discovery of a new natural cod-liver oil, containing more iodine, bromine, and phosphorus than the oil in present use, there is not the least doubt but that every physician would prescribe it in preference, fully confident of its enhanced qualities. The natural consequence of this proposition explains satisfactorily why the medical profession should give the preference to iodinized cod-liver oil, which contains a larger proportion of iodine, bromine, and phosphorus than the oil in present use; these active elements, as before remarked, are in such a peculiar combination that their action is slow, regular, and persistent, being successively set at liberty in the economy in proportion as the oil is decomposed in the process of animal life.

Some physicians are so well convinced that the curative properties of the oil reside in these three substances, that to obtain a full effect they prescribe very large doses of the oil, sometimes giving two, three, and even four tablespoonfuls three or four times a day, the larger quantity amounting to no less than half a pint daily. That their object is not attained is fully proven by physiologists, who have demonstrated that only the small quantity of oil emulsified by the pancreatic juice is digested and carried into the blood, the rest being passed off nearly as taken.

In view of the above physiological and chemical facts, experiments were made in 1858, which, after many trials, succeeded in preparing a *compound iodinized cod-liver oil*, which is simply the best Newfoundland cod-liver oil combined with four times as much of iodine, bromine, and phosphorus as that naturally contains.

Pure cod-liver oil varies considerably in composition, as may be seen by comparing the different analyses published in works of chemistry and materia medica. A quart contains 1 to 4 grains of iodine; $\frac{1}{2}$ to $\frac{3}{4}$ of a grain of bromine; $\frac{1}{4}$ to $\frac{1}{2}$ of a grain of phosphorus. In 1860, there was published in the *Repertoire de Pharmacie*, edited by Professor BOUCHARDAT, at Paris, the formula of a cod-liver oil, which contains per quart, in addition to the above quantities

Iodine,	16 grains.
Bromine,	2 grains.
Phosphorus,	2 grains.

The combination is made so that the odor, taste, and color of the natural oil are preserved.

This preparation being consequently five times more active than the richest commercial cod-liver oil, will tend to restore health by its curative action thus enhanced, in a much shorter time than the simple kind, and attain the desired effect where the other will fail.

The dose of this oil is *only* a tablespoonful for adults, and a dessert or a teaspoonful for children, according to age, three times daily. It may be administered at any hour, but it is preferable to select the time of meals, since we know that the pancreatic secretion manifests itself only during the stomachal digestion, to act immediately on the alimentary principles as soon as they pass from the stomach into the intestines. Though the quantity of iodine is very small in each dose, it acts nevertheless with a greater efficacy than a larger quantity of any of the iodides, for the reason stated by Professor BOUCHARDAT and others, that iodine in cod-liver oil is not eliminated from the system as the other soluble preparations of iodine, but is successively deposited in the economy as the oil is gradually decomposed in the blood.

When iron is required with the oil, the dragées or syrup of pyrophosphate of iron will be found the most agreeable and active adjuvant. It is best for children and delicate persons to take the syrup of iron after the oil."

— Dr. LASEQUE has been appointed Professor of General Pathology in the Paris Medical School, in the place of Dr. ANDRÉAL.

— Dr. CHARLES A. VAN ZANDT, an old and respected resident of Flushing, died suddenly at his residence, Van Zandt Point, recently. He had just entered his residence, and, after seating himself, complained of a pain in his side. His wife went for something to relieve the pain, and on her return, after a few moments absence, found her husband lying dead upon the floor.

CASES OF PROGRESSIVE LOCOMOTOR ATAXIA.

By JAMES BROWN BURNET, M. D.,

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Case 1. Robert Gardner, 35 years of age, was born in Ireland, of healthy parents. He has been in this country for eighteen years, and has been a butler by occupation. He always has enjoyed good health up to about twelve years ago, when in the winter season he was taken with a violent pain in the small of his back, which pain extended around, principally on the left side. These pains would last two or three days, then pass away, and he would feel as well as ever. During the winter seasons these attacks would come on three or four times. The physicians pronounced his disease to be lumbago, and treated him with Rochelle salts. He would have at the same time quite a severe pain in the præcordial region, which would pass off with the pain in the back. During the summer season he enjoyed good health, never being troubled with these attacks.

About fifteen years ago he had intermittent fever, which lasted nearly six months, and from which he entirely recovered. A year ago last July, whenever he went out into the street, he would be seized with dizziness, which would pass off when he came into the house. He also was troubled with headaches, which would come on in the morning and last until about 12 o'clock. These would probably take place two or three times a month, and were very violent while he had them. During these attacks he would have an eruption on his head, which would last as long as the pain, and then in a day or two would scale off. About the middle of October, his feet would at times become numb and cold, especially at night, and very violent pains would commence at the knees, go down to the feet, and then ascend to the head, these pains sometimes lasting the whole night. These would continue for three or four nights, and then go off for a week or so. Any change in the weather would seem to bring them on.

On the second of January he entered St. Luke's Hospital, and was there treated with strychnia. This continued until March, when he became quite weak, so that he was unable to walk. His medicine was then changed to Rochelle salts, and afterward back again to strychnia, but still his legs continued weak, and the pain was as severe as ever.

About fifteen years ago he had gonorrhœa, which lasted nine months. He also had a small sore on his penis and a bubo, but no breaking

out on his body at this time. About six years ago he was troubled with a stricture, and again while at St. Luke's Hospital, so that it was necessary to draw his water from him. This lasted for about one month. About four years after he had the sore on his penis, he had a slight breaking out on both arms, and afterward on his head. On the 11th of June he left the hospital on crutches, feeling no better. He remained with a friend until the 21st of July, when he was admitted to this hospital, not being any stronger in his limbs. He at this time complained of severe pains in his lower limbs and partial paralysis. There was permanent contraction of both pupils. They acted very sluggishly when exposed to a strong light. Slight tingling sensations in the arms; sensation not impaired, but it was slightly impaired in the lower extremities. The left was the worst leg. At the present time he has a numb feeling always before passing his water, and his penis often feels hot, which sensation partially passes off after he urinates. Whenever he lies on his belly, he has a dull heavy pain in the back, over the region of his kidneys. Since he has been in the hospital he has been gradually improving. There has been a decided improvement in his walk, as he can now go a short distance without the assistance of a cane. He walks cautiously, however, and watches each foot as it is raised from the floor. He falls backward if he attempts to stand still with closed eyelids. Whenever he stands upright he experiences pain in the lower part of his back. He has no pain in his back, except he lies on his face or attempts to stand straight. His urine has been examined, and found to be normal.

The diagnosis was made of *progressive locomotor ataxia*, and the treatment consisted in the administration of potassii iodidi, ten grains three times a day, with fifteen drops of syr. ferri iodidi. Bowels have been kept regular with pills of aloes, nux vomica, and belladonna, in small doses. His back and limbs have been vigorously rubbed with lin. sap. camph. He is gradually improving.

Oct. 29th. He appears to remain about in *status quo*. If anything, the pains in the limbs are rather worse.

Nov. 1st. He complains of lascivious dreams and seminal emissions, which appear to weaken him considerably. He has them regularly as often as once a week, and at times much oftener. He has had these for a number of years. He has formerly indulged himself in venereal excesses to a considerable extent, but never practised masturbation. He has been ordered ten

grains of potassii bromidi each night before retiring.

Nov. 2d. He could not sleep any last night on account of excruciating pains darting along his tibia. There are no nodes, and no symptoms of syphilitic periostitis.

Affairs thus went on until the early part of winter, when he was discharged, with very little change in his general condition.

Case 2. Anna Farley, 32 years of age, single, and a native of Ireland, was admitted to ward 14 of Bellevue Hospital on September 29th, 1866. She gave the following history of herself. Her father was healthy and died at the advanced age of 87; her mother still lives, is nearly 80, and suffers with asthma. Anna has resided in this country 16 years, and her occupation has been to cook, wash, and iron. She always enjoyed good health until she had been in this country about one month, when she was laid up with typhus fever in Cincinnati for about eight weeks. In the winter of 1852, she went to New Orleans, where she took the yellow fever, from which she did not fully convalesce for six months. In the summer of 1855, she went to Mobile, and was on a plantation, where she was taken with chills and fever, which lasted two weeks; then they would pass off for a few weeks, and then come on again, and so on for a whole year. During these attacks she had violent attacks of epistaxis. She rarely had such attacks before, and never but once since. After this she had good health, until about three years ago, when at a party one evening she was seized with a violent shivering throughout her whole system, which lasted only a short time however; but since that time she has been extremely nervous. At about the same period she would have attacks of dizziness, and quite a severe pain appeared in the posterior part of her head, sometimes being dull and heavy. This continued a few months, when she felt a pricking sensation coming on in the head and gradually passing down to the feet, sometimes severe, and then again quite slight. In about six months after the first attack, she was afflicted with double vision, which lasted nearly four months without ceasing. At the end of this time she had a very violent pain in the small of her back, which extended all around the body, and also all over the thorax, and as soon as this took place, the double vision ceased. These sensations and numb feelings have remained with her up to the present time. About a year ago, the dizziness became so marked, that it was almost impossible for her to walk at all, and she became very weak. For the past year, also, dull pains have been in

her feet, which feel quite cold and occasionally numb. She is quite nervous now, and sometimes is troubled with a twitching of the muscles of the face. For the last eight years, she has noticed, that, when she caught cold and coughed, or vomited, from any cause, she would throw up more or less blood. This at first would be clotted and dark, but afterward of a lighter red color, mixed with the sputa. She has a slight cough, especially in the morning, and sometimes a slight expectoration. Her appetite is capricious. For two years she has been troubled with a leucorrhoeal discharge. During the past year and a half, she has also been troubled off and on with difficulty in urinating, sometimes going 24 hours without being able to pass her urine. This was always relieved by nitre. She never was obliged to have her urine drawn by a catheter. She generally has been constive in her bowels. In three or four days after admission to the hospital, she was taken with a severe diarrhoea, for which she was treated with the following prescription:

R. Bismuthi subnitrat.,	3j.
Pulv. opii.,	gr. x.
Acidi tannici,	3ss. M.
Et div. in chart, no x.	
S. One three times a day.	

And from which diarrhoea she rapidly recovered. Generally in the afternoon her feet and legs begin to swell. This has been so for nearly two years. Pupils act well to light. Sensation is not impaired. She walks with an unsteady gait. If she stands still and closes her eyes, she feels as though she were swaying from side to side. She can grasp the hand with a firm grip. There seems to be great weakness in her back. She used to have great palpitation of the heart, but has not felt this for the past year. Her urine has been examined and found to be normal. Evidences of incipient tuberculosis. The diagnosis was made of *progressive locomotor ataxia*, and the treatment commenced, was 10 grains of the iodide of potassium, three times a day, in syrup of sarsaparilla. She is also taking tr. ferri muriat. She thinks there is no improvement. She has had sore-throat and her hair has fallen out, but she has never had any eruption on the body save prickly heat. She denies all syphilitic history.

Oct. 29th. No improvement. She has stopped taking potassii iodidi, and is now taking three times a day, one sixth of a grain of the nitrate of silver.

Nov. 1st. Feels rather worse. The pains in the head are increased. Locomotor powers are no better.

Dec. 1st. Discharged no better.

Hospital Reports.

SURGICAL DEPARTMENT OF PHILADELPHIA DENTAL COLLEGE.

CLINIC OF DR. GARRETSON.

Reported by H. L. Gilmore.

Discharge of Pus from the Nares.

Case 1st. Here is a patient who suffers with a discharge of pus from the nose; the trouble is occasional, not continuous. It has existed, off and on, as he tells us, for over a year. We first naturally examine the nares, as the inference would be, that from some local ulceration comes the discharge. In examining the various canals and cavities of the body, light and room to observe are the two essentials. One of the best rhinoscopes I have ever found, is composed of mid-day sunlight, and the delicate white handle of the ordinary scalpel. We place this patient with his face to the window, and with the knife-handle introduced into the canal, I press off one lateral boundary. I now can see very well into the nose. Practice this a little, and you will find that it answers ordinary purposes very satisfactorily.

Just inside the nares are seen two little teat-like elevations, one in either nostril; these are pathological appearances, and I presume will be found connected with the discharge. Looking at them closely, it is observable that each teat has an opening into it. We will pass a probe into these openings, and see to where they will lead us. Notice that on either side the instrument is directed toward the mouth. I presume this is a case of alveolar abscess; let us raise the lip and see. The two central incisor teeth, you can observe, are very dark; this means that they contain devitalized pulps. There is now no doubt of the nature of the trouble for which we are consulted; it is double dental abscess. The history of the case I can read for you without any reminders from the patient. Preceding this discharge from the nostrils he had severe toothache. First, inflammation of the pulps; secondly, periodontitis. The teeth became very sore to the touch, and felt elongated. After a few days, three or six, more or less, he found sudden relief in the first appearance of this pus from his nostrils; the suppurated matter had found vent, the pressure ceased, and of course the relief was experienced. An alveolar, or tooth abscess, is, as a general thing, a very simple affair; the periodontium becomes inflamed, and suppurates. The pus, accumulating about the root of the tooth, compels, for its accommodation, an absorption of the surrounding bone; egress is sought in the easiest way, and this is generally found on the vestibular face of the process, directly opposite the affected part. It is the abscess known as parulis, or gum boil. Cases occur, however, as in the one before us, where the pus does not take this seemingly natural course. Here, both abscesses have opened into the nose. I have generally found, however, that there are very good reasons why the anomalous courses are pursued. In antral abscesses, for example, or rather, in

alveolar abscesses, discharging into this cavity, it will always be found, that in such direction was encountered the least resistance. In specimens upon the table, you can see a number of maxillæ, where the roots of the molar teeth are so long as to pass entirely through the antral floor. We certainly could not expect, under such circumstances, that the discharge would occur anywhere else than into the sinus. In the case before us, the septum of bone intervening between the roots of the teeth and the nares, is, I am positively certain, less in thickness than the lateral alveolar boundaries; hence, it is quite natural that the discharge should here take place. I have known an abscess from a periodontally diseased tooth discharge into the orbit. In this case, the only one I ever met, the tooth was encysted, and lay between the antrum and nasal process. Alveolar abscesses not unfrequently discharge upon the cheek. In these instances, however, the treatment has generally been of a domestic nature. I have treated them upon the neck, upon the temporal region, at the apex of the chin, upon the inter-maxillary suture, and in other positions which I do not just now recall.

To cure this patient of his discharge, we must, of course, cure the teeth. The easiest and most speedy and certain way to do this, would be to extract them; I will advise, however, first, the trial of another plan. I will send him to the dental department, and holes shall be drilled through the palatine faces of each tooth into the pulp cavities; through the outlets thus made the pus will discharge itself, the sinuses leading into the nares will close up, and while thus at once we will relieve him of the nasal trouble, it is not at all improbable that by the occasional syringing of the abscesses through the canals of the teeth, with dilute tinct. of iodine, that we may as well save for him organs, which, in such a position, influence so much his personal appearance.

Union of Buccal Mucous Membrane with the free Alveolar Border.

Case 2d. — The case of this lady is a little peculiar; she has only three-quarters of the proper vestibular cavity. When I raise the upper lip you can see, that while the labio-alveolar sulcus is normal on the right side, it is entirely obliterated on the left. The patient has no teeth in the upper jaw, having had them all removed in expectation of providing herself with an artificial set. With this deformity and impediment, however, you must at a glance see that artificial teeth cannot be inserted, and it is for the restoration of the parts to a natural condition that she comes to our clinic.

In devising an operation we have to notice whether the deformity implicates the soft parts alone, or soft parts and bone. If alone the soft parts, we have only to make a dissection, which shall cause the two sides to correspond. If, on the contrary, the deformity is in the bone, it will necessitate the free use of the chissel, and which, unless the patient insists, I would not think it desirable to attempt. It would be paying too dear for the whistle.

I now mould the cheek upon the bone. You perceive the osseous boundaries of both sides cor-

respond. I then have only to raise the lip, and with a few cuts, as you here see, I restore the lost fourth of the vestibule. This, however, is not the cure entirely. We must prevent the sections reuniting; to accomplish this most satisfactorily, we will have an impression of the mouth taken with the cream of plaster, and on the model thus obtained, a plate of gutta percha must be moulded, which, enveloping the restored alveolar border, will, of course, ensure against the possibility of reunion. The same result might be accomplished by keeping cotton, or other substances of an unfixed nature between the cut surfaces, but not so satisfactorily. The plate, being fixed and permanent, yields much the smallest amount of irritation, and by its use the separation is entirely under the surgeon's directions. I recommend that you always employ the plate in these cases.

Amputation of Uvula.

Case 3d. The uvula, as we are to remember, is composed of two little muscles, enclosed in a bag of mucous membrane. The muscles being fixed to every part of the circumference of the bag by cellular tissue, amputation of this organ is not unfrequently called for on account of its elongation, or oedematous enlargement. When elongated, and resting upon the tongue, it produces, by the irritation of its presence, a disagreeable hacking cough, and which, not relieved, might very well result in more than functional trouble of the lungs. Elongation is of three-fold character. It may depend on simple relaxation of the enveloping mucous membrane, upon atony of the contained muscles, or on a general hypertrophy of the organ. In the two former cases, its contraction may often be compelled by the application of astringents. In the latter, the sorbifacients are demanded. Amputation is, however, by far the easiest method of cure. Sometimes, and most suddenly, this organ will swell out like the ambitious frog. It will fall into the chink of the glottis, and if not speedily collapsed would destroy life. In these cases, the enlargement depends upon an exudation of serum into the cellular tissue. Application of the tinct. of iodine is here highly recommended by some writers, but amputation, I think, will be found by far the most satisfactory treatment.

The patient before us has an elongated uvula. I propose to amputate it; that is to say, I propose to take off just so much as renders it too long. The operation is exceedingly simple; I have performed it on my own uvula, standing before a mirror. Here is a pair of Liston's forceps, a pair of curved scissors, and a tongue-depressor. These are the instruments required. With the depressor I force down the tongue, and hold it; with the forceps, which, as you see, close with a spring, and are tooth-pointed, I catch the tip of the organ; now it is completely under my control. I pull it gently forward, and you see I have it directly in the centre of the oral cavity; my assistant now takes the tongue-depressor, and with the relieved hand I take up the scissors and clip off the organ. Here, in the grasp of the forceps, is the piece. We will direct the patient to gargle the throat with a decoction of oak bark; and he had better take for a month to come, the

ferrated elixir of cinchona—a teaspoonful three or four times a day.

At our next clinic I propose to exhibit, in some operations, the "RICHARDSON Spray Producer."

COLLEGE OF PHYSICIANS AND SURGEONS, }
New York, January 25, 1867. }

OBSTETRICAL CLINIC BY PROF. T. G. THOMAS.

Reported by E. S. Belden.

Epileptiform Convulsions.

Lucy C., æt. 16, unmarried, first menstruated at 13. She was perfectly healthy up to about twelve months ago, when she had her first fit. Since then she has had several fits at or about each menstrual period. During the interval between these periods she complains of nothing but slight pain in the back and head, and trouble caused by the presence of thread-worms, which she states she discharges in large quantities.

What are these fits that the patient complains of? There are but three forms of convulsion to which the adult or child is liable. First, *simple* convulsions; second, *epileptiform* convulsions, the convulsions which resemble epilepsy; and, third, *epileptic* convulsions, which are due to certain irritations of the nervous system, of which we know very little indeed. Convulsions due to alcoholic poisoning, are epileptiform, as they resemble epilepsy very closely. On approaching a case of convulsions, we are to decide whether it is hysterical, epileptiform, or epileptic. This patient receives no warning before falling, falls perfectly unconscious, has clonic spasms, froths at the mouth, and sometimes finds her tongue sore on recovering from the convulsion, which lasts but two or three minutes. These symptoms are very different from those of hysterical convulsions, which often last from four to five hours, the patient remaining in a semi-conscious condition all this time, never biting the tongue or frothing at the mouth. So we may exclude hysteria, and decide whether the patient has epileptiform or epileptic convulsions. Epileptiform convulsions are always due to some exciting cause, which we are generally able to discover. If we do not discover such cause, we may say the case is one of epilepsy. Though this is not a good ground of division, it is the one upon which we practice.

In looking for the cause of this disease, we may exclude the presence of thread-worms as not likely to produce convulsions in a patient of this age, or at such regular periods. In examining a young unmarried lady for the cause of convulsions, always examine especially for two things: onanism and absence of menstruation. I found nothing in the patient's history to indicate the former. On physical examination I found the vagina narrow, longer than usual, but unobstructed by any trace of a hymen, and when I finally succeeded in reaching the uterus, I found it very small and movable. On examining per rectum and vagina conjointly, I found the uterus was not over an inch in length, and half an inch in width. The mucous membrane of the cervix was in a condition of congestion and inflammation almost, if not quite granular. Though this girl has menstruated regularly for three

years, the discharge has been very slight. She is very plethoric and strong. This is the negative evidence that this condition of the uterus is producing convulsions. I have seen a dozen cases of epileptiform convulsions due to imperfect menstruation on account of the want of development of the uterus, and I believe the convulsions in this case are due to this cause. At puberty, the uterus, instead of developing, remained perfect, but small. It consequently does its duty, but there is so small a surface for secretion and so little parenchyma to contain bloodvessels, that the discharge is insufficient. This is a type of a very large class of cases.

Prognosis. I believe she can be cured of these convulsions, though it may take a year of persevering effort to accomplish it.

Treatment. In the first place, as the uterus does not discharge the necessary quality of fluid every month, this depletion could be increased artificially, by taking from three to six ounces of blood, by leeches applied to the groin, after each menstrual flux. A better way of treating this case, and one which looks to a radical cure, is to make this uterus as large as it ought to be. This may be done in this way. Every week or ten days a sponge-tent should be introduced up to the fundus, and left in for twelve or twenty-four hours. As it increases in size, it distends the cavity of the uterus, and causes the walls to grow. After dilating with sponge-tents, the galvanic pessary may be left in the cavity during the week preceding each menstrual epoch. Galvanism may be used externally, by placing one battery over the spine, and the other over the uterus; or the nerves of the mucous membrane of the uterus may be stimulated by passing a steel probe, attached to one pole of the battery, and covered by a catheter, up to the fundus, the other pole being placed over the spine. The day on which the tent is introduced, the patient should be kept quiet in bed.

Sterility and Dysmenorrhœa.

Mary H. L.— came to me first in May last. She was 32 years old; had been married four years, but had no children. Though she was in perfect health, she suffered severe pain each month, at the moment the menstrual period came on. The uterus was filled with blood, which caused intense bearing down pains, which would force out this fluid, thus giving her some relief. On examination I found inflammation of the mucous membrane of the uterus. The uterus was in its natural position, but the cervix very long, and had the peculiar conical form which usually causes sterility. The cervix was so long and small, that the spermatozooids would not enter, nor the menstrual fluid pass out, without pain.

I recommended slitting open the cervix about a quarter of an inch, and dilating the canal every day, to prevent the adhesion of the newly cut edges while healing.

Since the operation was performed, she complains of feeling "very much worse;" and says "she has had no menstrual discharge, and suffers from constant nausea and vomiting." I have commonly had the same result from this simple incision of the cervix.

Medical Societies.

ANNUAL MEETING OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

Albany, February 5th, 6th, and 7th, 1867.

FIRST DAY.

The State Medical Society met in the Common Council Chamber at the City Hall, at 11, A. M. Dr. JOSEPH C. HUTCHISON, President of the Society, called to order, and the meeting was opened with prayer by the Rev. Dr. DARLING.

The Annual Address of the President opened with congratulatory remarks on the condition of the Society, and touched feelingly upon the deaths of Drs. HORACE GREEN and HOWARD TOWNSEND, and other distinguished members. The medical schools in the State were represented as being in a sound and prosperous condition, and the value of the union of medical schools and hospitals as being more and more appreciated. An inquiry should be made into the fact of degrees of medicine being granted by any such schools to those who had studied with irregular practitioners. The three medical journals of the State were strongly commended to the patronage of the members. A collation of the by-laws and rules of order was also suggested. He regretted that the law passed by the Legislature in relation to county and state medical societies was not confined to the legitimate members of the profession. He spoke very favorably of the labors of the New York Board of Health, and attributed to their efforts our freedom from an invasion of the cholera.

The usual committees were appointed by the President, as follows:

On Credentials—Drs. Alex. Thompson, Lansing, and Bailey.

On Business—Drs. Squibb, Vanderpool, and Grey, of Utica.

On Reception—Drs. March, Brinsmade, and Bibbins.

Drs. Brinsmade, Hyde, and Chamberlain were appointed a Committee on the President's Address.

Dr. MARCH presented the names of Dr. STORER, of Boston, and Dr. FOSTER, of Portland, Maine, as delegates from their respective States.

Dr. POTTER, of Montgomery county, presented a case of malformation of the spine, accompanied by a parasitic growth on the surface of the body.

The report of the Treasurer, Dr. QUACKENBUSH, of Albany, showed a healthy condition of the funds of the Society.

Prof. ELLIOTT, of Bellevue Medical College, read a paper on Still-births. Referred to the Publication Committee.

Dr. MARCH read a paper on the Removal of Urinary Calculus from the Urethra. Referred to same committee.

An interesting report of the Delegates to the Massachusetts State Society was read and appropriately referred.

A number of interesting reports and papers

were referred to the Publication Committee, their authors not being present.

A short business meeting was held in the evening, after which the members adjourned to the Supervisors' Room, where an entertainment was provided by their medical confrères of Albany.

SECOND DAY.

At the session last evening, Prof. MORRIS, of the Deaf and Dumb Asylum, by invitation, read a paper on Consanguineous Marriages. Afterward, some interesting statistics were offered by Dr. B. F. HUGH, when on motion of Dr. SQUIBB, a copy of both papers was requested for publication.

At the opening of the session at 10 o'clock this morning, Dr. PARKER, Chairman of the Committee on Prize Essays, reported that three essays had been sent in for the prize offered by Dr. BRINSMADE, of Troy. The latter gentleman had offered a prize for the best essay on medical vital statistics, the method of keeping hospital records, and of the action of peculiar medicines; to be accompanied with the draft of a law for tabulating and recording births, deaths, and marriages. The envelope indorsed "Albany," in their opinion, is the best, and they consequently award the prize to it. On discussion, the prize was in future to be limited to members of county medical societies.

Dr. SQUIBB presented the report from the Committee on *Materia Medica*, in which a large number of drugs were analyzed, and a statement made, that it was thought that many remedies could be procured from American sources which are now obtained from Europe.

The report was received and laid on the table.

An invitation was received and accepted from Mr. A. McCURE, of No. 158 State street, Albany, extending his hospitalities to members of the Society after the delivery of the President's address at the capitol this morning.

A committee of three, of which Dr. HUNT is chairman, were appointed to draw up a suitable memorial of Dr. HOWARD TOWNSEND, to be printed with the proceedings of the Society.

Dr. NEWMANN, of New York, offered a resolution that a committee of three be appointed to investigate the results of consanguineous marriages, and to confer with other medical State societies, they reporting to next annual meeting. Adopted.

Dr. GARRISH offered a resolution to increase the number of permanent members from each Senatorial district to six, instead of two, as at present. The motion was made with special reference to our large cities and suburbs. This resolution occasioned a great deal of discussion, and was indefinitely postponed.

Dr. BRINSMADE, from the Committee to whom the President's Address was referred, reported: 1. That it is their opinion, that it is optional and not compulsory for schools of medicine to confer degrees upon those who present certificates of a course of study with irregular practitioners; and that they so explicitly declare it in their annual catalogues. 2. They recommend

the patronizing of the medical journals of the State. 3. They do not recommend any change in the act passed by the Legislature at its last session, in relation to organization of county medical societies. 4. They recommend a speedier issue of publications of the Transactions of the Society, and that the Committee of Publication be instructed to revise the by-laws, resolutions, and rules of order of the Society, and with them to print the law of the Legislature affecting county society organizations. The report was adopted.

Dr. BRINSMADE offered a resolution that five delegates be nominated by the Committee on Nominations, to represent the Society at the meeting to be held in connection with the Great Exposition at Paris in 1867, and that the Secretary be empowered to appoint alternates.

Dr. SMITH, of Manlius, from the Committee on Pharmacology, presented their report. Adopted.

Dr. NOYES, of New York, read a paper on the Relation of Diseases of the Eye to Diseases of the Brain; and the Application of the Ophthalmoscope in Discovering Diseases of the Brain. Accepted and referred to the Committee on Publication.

Dr. TOWLER, of Geneva, read an essay on New Interpretations of the Physiology of the Eye. Accepted and referred.

The following committees were announced:
Committee on Consanguineous Marriages—Drs. E. Harris, R. Neumann, and Fowler.
Committee on Preparing a Memorial of Dr. TOWNSEND—Drs. Hun, Vanderpool, and Mosier.

AFTERNOON.

At the afternoon session a large attendance was present. The meeting was exceedingly interesting. Dr. J. ANDERSON offered a preamble and resolution in regard to Criminal Abortion, and the devices of quack advertisers of alleged preventives to conception. After discussion the subject was laid over until Thursday. Dr. JNO. C. DALTON read a paper on "Vivisection," containing a defense of the practice against the allegations of the Society for Preventing Cruelty to Animals. Dr. WILLARD PARKER presented a paper on "Cystitis, and rupture of the bladder." An original portrait of VESALIUS, by Hammon, the property of Senator White, was exhibited to the members. It represents this first anatomist, who flourished 300 years ago, busy under the shadow of the crucifix with the secrets of his art. Dr. A. N. BELL, of Brooklyn, read a paper on "Marine Hygiene," embracing some practical and important suggestions in regard to separate apartments for male and female emigrants, the proper ventilation of the same, such legislative action as shall prevent seduction among female passengers, and the general care of that class of our future citizens. Dr. SWINBURNE urged upon the members the importance of all these suggestions.

A resolution by Dr. HYDE, in regard to allowing Homœopathic treatment in wards of hospitals under control of the regular profession, was laid over until Thursday.

Dr. MORRIS offered a preamble and resolutions, in regard to the case of emigrants, recommending

the Legislatures to be strongly memorialized upon the subject. Adopted.

In the evening at 8 o'clock, the Society met in the Assembly Chamber to listen to the annual address of the President. A large audience was present, who manifested a deep interest in the able address of Dr. JOSEPH C. HUTCHINSON, of Brooklyn, on "Charlatanism." Afterward the Society adjourned to the residence of A. McCURE, Esq., where they were warmly and hospitably entertained by their host.

THIRD DAY.

In this morning's session, Dr. VANDERPOOL offered a resolution increasing the number of delegates to the meeting at Paris, in connection with the great Exposition, from five, to ten.

Dr. CRANDALL, from the committee to whom was referred, the matter of Legislative action in regard to experiments upon living animals for purposes of physiological investigation, reported that such investigations were necessary to the work of medical science, that they were conducted without wanton cruelty, and that it would be injurious to the cause of medicine were such investigations to be prohibited, and appended a resolution to memorialize the Legislature. Adopted.

Dr. WILLARD PARKER made some interesting statements in regard to the Health Board of New York. He alleged that there was a strong element of homœopathy in the Board at the start; that three of the daily papers (including the *New York Tribune*) had a leaning to heresy in medicine; and that some of the police doctors were homœopaths. The sanitary Committee of the Board, however, at the start, refused to appoint any homœopath as inspector. When the cholera came, and the various dispensaries were united by telegraph with the central office of the Board of Health, the Homœopathic Dispensary came and demanded their right of representation. They claimed that they could save 80 or 90 per cent. while the regular practice claimed only 50 per cent. That was the ratio, also, throughout the country. The Homœopaths claimed that they were a large, wealthy, and influential class of our citizens, and ought to have a fair representation, and desired a separate hospital where they would be freed from the surveillance of inspectors of the regular profession. Finally, it was decided to give them separate wards in each hospital, but the medicines must be given out through the Board of Health, and a careful record kept of the medicines given and the state of the patient. They were simply to be under the same regime as other wards and physicians. We finally challenged them to the trial in genuine cases of cholera. We have heard nothing from them from that day. Dr. HARRIS of New York followed in the same strain, and believed that the members of the Board of Health belonging to the regular profession, had acted rightly in facing charlatanism down.

Dr. BRINSMADE offered a resolution that a committee of three be appointed to urge upon the Legislature a law for a complete registration of births, marriages, and deaths. Dr. BRIBBINS of New York, suggested the impossibility almost of

a complete registration of births. Many children are born without any attendance; many of the midwives cannot read or write; medical students keep no record of cases they attend, and many physicians prefer to make no report rather than let it appear how small their practice is. Thus four classes are not reported. There ought to be a law that no child could inherit property unless registered. Dr. WILLIAMS of Massachusetts, said that in that State they had a man appointed to take a census of births twice a year, going from house to house.

Dr. BRINSMADE, from the committee to whom Dr. HYDE's resolution in regard to the blending of Homœopathic with regular treatment was referred, reported a preamble and resolution strongly against any union with or recognition of the Homœopathic system.

The resolutions on the subject of criminal abortion, and advertisements of quack preventives, etc., were brought up and adopted, together with a resolution that the Legislature, in both branches, be requested to pass a stringent law upon the subject.

The following papers were sent unread to the Publication Committee: On Tenant-Houses, by Dr. Toms; Report on Cholera and Cholera Ships, by Dr. Swinburne; Prize Essay on Vital Statistics, by Dr. Hough; Origin, Composition, and Medical Properties of Saratoga Mineral Water, by Dr. Allen of Saratoga. After the transaction of some unimportant business the Society adjourned to 1868.

The following were reported by the Nominating Committee as officers of the State Medical Society for 1867—8: President, Dr. JOHN P. GRAY, Utica; Vice-President, Dr. LAKE J. TEFT, Onondaga Co.; Secretary, Dr. WILLIAM H. BAILEY, Albany; Treasurer, Dr. JOHN V. P. QUACKENBUSH, Albany.

EDITORIAL DEPARTMENT.

Periscope.

Principles of Treatment in Heart Disease.

Dr. HABERSHON, in the last number of *Guy's Hospital Reports*, as quoted by the *Cincinnati Journ. of Med.*, lays down the following principles of treatment in heart disease:

1. To lessen the work of the heart, which may be effected, to some extent, by mechanical rest, by a recumbent position, and by the avoidance of sudden changes of temperature.

2. To insure regularity of action, by avoiding mental excitement, guarding against indigestion, and by never allowing constipation to continue.

3. To lessen distension of the right side of the heart, by means of purgatives, diuretics, and, by mechanically diminishing the quantity of fluid in the circulation.

4. To prevent syncope, by avoiding sudden muscular movements, and the use of sedatives; or, if the latter be employed, to be cautiously administered.

5. To strengthen the muscular fibre of the

heart, by suitable nourishment, chalybeate medicine, and a bracing atmosphere.

6. To prevent fibrillation of the blood, by the use of iodide and acetate of potash, but not continuously in large doses, as then they might depress the action of the heart. Brandy, by its tendency to counteract syncope, may in a secondary manner, prevent fibrillation. Rightly given, brandy is a most valuable medicine in cardiac diseases; and it may be the means of greatly prolonging life, and relieving the distress of the sufferer.

7. To prevent secondary complications, and to relieve them when produced. These complications are, broncho-pneumonia, and pleuritic effusions, pulmonary apoplexy, and other hæmorrhages, and visceral engorgements, as hepatic and venous congestions, with ascites and anasarca. Portal congestion may be relieved by a mercurial purgative, the compound jalap powder, or the elaterium powder. The kidneys may be excited to a more vigorous action, by a combination of mercurials with squills; the nitrate, iodide, and acetate of potash, combined with nitric ether, squill, juniper, or broom. The anasarca may be diminished by puncturing the skin on the thigh, and the flow of serum be promoted by warm applications. Hæmorrhage, to be reduced by dilute sulphuric acid, with sulphate of magnesia and gallic acid, or acetate of opium, alum or the oil of turpentine; but as it is the result of intense venous congestion, it is mitigated in a greater degree by lessening the congestion, than by direct astringents. The pulmonary engorgements, may be greatly reduced, by the application of cupping glasses between the shoulders, or a blister to the chest.

Antidotes for Poisons.

In the *British and Foreign Medico-Chirurgical Review* we find the following statements: Messrs. T. & T. C. SMITH claim to have discovered a common antidote for prussic acid, antimony and arsenic.

Prussic Acid Antidote.—Take of liquor of perchloride of iron 57 minims (drops); protosulphate of iron in crystals, as pure as possible, 25 grains; as much water as will make a solution of a proto-sesquisalt of iron, measuring about half an ounce. Dissolve, on the other hand, 77 grains of crystalized carbonate of soda in about half an ounce of water. These quantities destroy the poisonous action of between 100 and 200 drops of prussic acid, officinal strength, by giving first the one liquid, and then the other.

Antidote for Cyanide of Potassium.—The antidote for this compound is the same as for the prussic acid, except that the solution of proto-sesquisalt of iron is to be used without the alkaline or soda solution, the prussic (hydrocyanic) acid being already combined with an alkali. The use of the alkali, however, would not be injurious—a harmless yellow prussiate would be formed. In this case, in consequence of the possible presence of free acid in the stomach, the alkaline liquid should be given first. The quantities given, as the prussic acid antidote, would decompose 35 grains of cyanide of potassium.

Medical and Surgical Reporter.

S. W. BUTLER, M.D., Editor and Proprietor.

PHILADELPHIA, FEBRUARY 16, 1867.

THE DUTY OF THE HOUR.

In all human probability, the end of the present century will find the United States inhabited by the vast multitude of one hundred millions of people. There will be densely populated States, and more than one city with over a million of inhabitants. This population will be governed by the strongest impulses and passions of a progressive age. With this increase of population, this growth of empire, unprecedented in history, the dangers of neglect of sanitary laws and government will be fearfully increased. The primitive modes of applying sanitary laws for the benefit of the masses, who in the great struggle for life, have neither time nor inclination to be "a law unto themselves," as they have been handed up to us from our fathers, from a time when the nation was in its infancy, will be entirely inefficient. Unless the present inadequate systems of sanitary provision and rule be entirely remodeled, nay, revolutionized and adapted to this growth of population, future generations will surely pay the penalties which nature inflicts, always, when her laws are neglected and violated.

Our older States, with their numerous and thickly populated cities and towns, the younger States of the West rivalling the former, can no longer be left, in a *sanitary sense*, to *accidental government*. We need in every State, in every city and town, a **STRONG, EFFICIENT, THOROUGH CODE OF SANITARY LAWS, GENERAL ENOUGH, TO BE UNIFORM IN ITS MAIN FEATURES, THROUGHOUT THE UNITED STATES, AND SUFFICIENTLY MINUTE IN ITS DETAILS, TO ALLOW OF ADAPTATION TO PECULIARITIES OF A LOCAL CHARACTER.** This we must have, unless we choose to incur the danger of wrecking the nation hygienically. To labor for the accomplishment of this object, is a duty we owe to ourselves as citizens of the great Republic—it is the *duty of the hour*. If we boast of being, and justly too, the *freest, wealthiest, most progressive, and happiest* nation on the globe, let us no less endeavor to become and remain the *most healthy*. If we allow the twentieth century to surprise us without having made provision to ward off disease, and maintain the public health by the most efficient sanitary rule, the work *then* will be almost beyond the power of man. The country

will become an *Aguean Stable*; but unfortunately our age does not produce a *Hercules*.

In many communities, in many states, in numerous municipalities, Sanitary Codes are in existence. But as yet they are neither complete, nor efficiently worked. The best, as yet, are but experiments. System and uniformity are needed. Spasmodic efforts at sanitary reform in the face of threatening epidemics, such as of cholera, may be of some temporary benefit: they undoubtedly are, but lasting good results, can only be expected from comprehensive, thorough, and continuous sanitary rule.

This is the season of the year, when legislatures are generally in session. In a number of them, laws are pending for adoption, looking to better sanitary government of the people. Our profession should, as one man, work in their behalf and see to it, that the laws enacted be efficient, and not *half-way* measures. While it is true, that the more speedily our various communities are brought under sanitary rule, the better; still, too hasty action may be worse than nothing. The whole matter is in the hands of the profession if they choose to use their influence unitedly. Why not?

What we ought to have in every State, is, a Board of Health, with powers like the Metropolitan Board of Health of New York, ramifying through every city and town; with compulsory vaccination, the power of abating all nuisances and dangers to public health, and discretionary power in times of threatening epidemic disease to institute all measures necessary to prevent or mitigate their spread.

THE SALT QUESTION.

In an obscure corner of one of our daily papers, as if the editor was afraid that it should be known that he had published a word on the unpopular side of a subject, we find a sensible letter from one of our distinguished physicians, on a topic that has attracted a good deal of attention in this city the past winter, and on which a great deal has been said that is very silly. Some persons who have assumed to represent public opinion, and who have done so with so much earnestness and wordy vehemence, that they have almost monopolized the channels of public opinion, have been urging that the use of salt for the purpose of removing the snow from the city railway tracks is unhealthy, that it causes dampness, refrigerates the atmosphere, and is attended with other evils, positive and constructive, physical and moral. Their case has been founded on simple assertion. They have not appealed to either

science or common sense in the matter. They have not asked the physician whether sprinkling a little salt in the streets is deleterious to health. They have not thought it worth while to get the opinion of men devoted to scientific pursuits as to the effect it has on the state of the atmosphere. They simply said and reiterated, until people began to think it was true, that the practice caused diphtheria, (but there was no diphtheria;) caused scarlet fever, (but there were only a few sporadic cases;) caused "sickness," (but the season has been one of remarkable health.) They have said that it caused dampness, (their barometers did not say so;) caused coldness of the atmosphere, (their thermometers were at fault.) In fact, their case was founded on nothing but bare assertion; but it has had the effect to induce City Councils and the State Legislature to attempt to legislate on a subject on which no effort has been made to prove the slightest necessity for legislative interference.

As to the common sense of the matter, we suppose that our astute decriers of salt will consistently avoid the sea-side resorts next summer, and the newspapers that have been so earnest in the matter will urge the New Jersey Legislature to close all such sickness-producing places within her borders by statutory law, and that speedily.

B. HOWARD RAND, M. D., Professor of Chemistry in the Jefferson Medical College, addresses the following communication to a city paper, which shews that if our legislators would feel it worth their while to consult scientific men on scientific subjects, they might sometimes avoid unnecessary legislation.

ED. PHILADA. INQUIRER:—The writer is not interested, in any way, directly or indirectly, in any street railway company. Being gifted with a good pair of legs, he does not use the cars, and may, therefore, be at least entitled to a hearing as an impartial writer.

The hue and cry raised in regard to salted tracks, does not, certainly, reflect much credit on the judgment of our people. The grand jury, under oath, present the custom as a nuisance; the Legislature unanimously passes through one branch a bill making it a penal offense, and one branch of Councils, with equal unanimity, forbids it.

On what authority is all this action based? Certainly not on that of scientific or medical men, for when such testimony was taken, a few years ago, before a committee of Councils, it was decidedly in favor of the use of salt. Let us consider its advantages and drawbacks. Salt, by an action which may be termed chemical, thaws snow during cold weather, and removes in a few hours that which would not be melted by natural agencies in as many days. The snow must melt, and the salt only makes it do so more quickly. As the result of this action, in a few hours the streets used by cars are open for travel, not only of cars, but of vehicles of all kinds. Abolish salt, and travel on the street cars would necessarily be suspended after each heavy snow for several hours, and sometimes for days, as is now the case in Boston and New York.

The inconvenience to thousands of all classes, and the loss from suspension of business, would be considerable. Not only would car travel be suspended, but heavy vehicles, as drays, would have to increase their teams, and much hauling would have to be put off until a thaw. The truth of this can easily be seen by comparing, after a snow, any street having a track with a side street not so provided. Supposing it possible to remove the snow by ploughs and brushes, it will only make the piles on each side of the track higher than ever, and render turning out in many streets a matter of impossibility. As to the disadvantages of the custom of salting the tracks, it is alleged that it is injurious to the health of the community. This is not true, nor will any respectable medical man endorse such an assertion. Our city is as healthy now as it was before the use of salt, as is shown by the table of deaths. A few years ago it was said that salting the tracks caused diphtheria, but scarlet fever this year takes the place of diphtheria. Will they charge the scarlet fever to the use of salt.

As to the destructive effects of salt upon clothing. Salt water does not penetrate leather so readily as fresh snow water. This has been shown by actual experiment. A light gum sandal, which should be worn by all in slushy or slippery weather, will entirely protect both boot and foot from wet. That a person may be made sick by a wet foot where there is no salt, is not denied.

Salt is a neutral body; it has no chemical action upon fabrics: it does change some colors; and if women prefer to drag silks printed with aniline dyes through the mud and slush to using a more suitable material for such a purpose, we cannot pity them if their finery becomes damaged. As before stated, I walk over all parts of our city, and can truly say that I have not suffered one-tenth of the inconvenience from salted streets that I have from the accumulations of ice on the sidewalks from our miserable system of surface drainage.

EXPERIMENTAL PHYSIOLOGY.

It is a matter of rejoicing to all who have the progress of physiological science at heart, that promptly upon the agitation instituted against experimental physiology (vivisection in particular) by certain well meaning, but we think, mistaken men, the MEDICAL SOCIETY OF THE STATE OF NEW YORK has protested by formal resolution against attempted legislative interference with this most valuable method of physiological research and study, and has expressed its appreciation of this method. Nothing could better demonstrate public professional sentiment than these resolutions, which we give elsewhere.

Our views on this subject have been so repeatedly and emphatically expressed, that we thought it unnecessary to comment upon several communications which we have published, and which advocated an opposite view. To invoke legislative enactments or public opinion against the only method of physiological study which can yield positive results to-day, seems to us as ridiculous as were legal enactments and public demonstrations against dissection of the human body in the middle ages.

THE SOCIAL EVIL AGAIN.

As has already been stated in our columns, a resolution has been introduced in the legislature of the State of New York, looking toward legislative control, or suppression of the "Social Evil." The resolution was offered in the Assembly by Mr. JACOBS, to the following effect: "That the Board of Metropolitan Health Commissioners and the Metropolitan Board of Police be requested to communicate to this House, at their earliest convenience, their opinion as to the necessity and the probable result of legislation looking to the more thorough restriction of prostitution in the city of New York." This resolution having been referred by the Board of Health and Police, to the Sanitary Committee of the former Board, this Committee at a late meeting made a report, the importance of which can hardly be over-estimated.

After dwelling upon the wide extent, and fearful effects of prostitution, as shown by the statistics of several diseases in public institutions, subjects, which it is unnecessary to repeat here, the report closes with the following propositions, which were adopted:

First: That it shall be the duty of all hospitals and dispensaries in the Metropolitan Health District, which receive pecuniary aid from the State, cities, or counties, to receive, treat, prescribe for, and dispense medicines to all persons afflicted with venereal diseases, on the same terms as persons afflicted with other diseases, without any exceptions, distinctions, or charges founded on the nature of such diseases.

Second: That all keepers of houses of prostitution and assignation shall be registered, and all prostitutes who live in these houses. That these registers shall contain their names, ages, nativities, and whether married or not. These registers shall not be open to public inspection. The owners of all houses of prostitution and assignation shall be also registered. In case any woman shall gain admission into a house of prostitution, the fact is to be announced to the Police, and the Police shall not allow such woman to remain in such house unless she is a registered prostitute.

Third: That the Metropolitan Board of Health shall establish a hospital for prostitutes affected with venereal diseases, and shall appoint physicians for the same. The cost of such hospital to devolve upon the police.

Fourth: That the Board of Health shall cause to be inspected the houses and persons of all prostitutes, and if any prostitute is found diseased with any venereal affection, shall send her immediately to the hospital. By subjecting the owners of houses of prostitution to registration, it is believed that it would compel the owners of houses to have regard to the character of their tenants, and prevent the sub-letting of them for infamous purposes. The publicity given to their names would prevent many from renting their houses for such purposes who now do so, because it can be done secretly. Registration would also enable the police to close many houses of assignation, which are the schools in which young women begin a career which ends in prostitution. It would prevent in a great measure the meeting of married women in these houses, for they would fear the

watchfulness of the police, and dread the public exposure which might follow. The fear of a long detention in the hospital will compel them to confess their maladies early, and not continue their vocation until obliged by aggravated disease to stop. Registration will enable parents to trace their children, and in some instances to reclaim them; or in case property is at stake, it will enable those concerned to know whether they are living or dead.

The book which contains the names of registered house-keepers and prostitutes, should never be open for public inspection, because the peace of respectable families would be destroyed by the secrets contained therein.

It is considered doubtful, whether the legislature of New York will pass an act in accordance with these suggestions of the Sanitary Committee. It meets severe opposition from the "brothel interest" on one hand, and a class of extreme moralists on the other. But, whatever the immediate legislative result may be, the final effect of this agitation, by its opening the eyes of the public to one of the prominent evils of society, will be for good.

Notes and Comments.

The Sanitary Department of the Paris Exposition.

We have, on one or two occasions recently, referred to the Sanitary Department of the Paris Exposition, and spoken of what Dr. EVANS had done toward getting up and perfecting it. A correspondent, noticing that we omitted all mention of the agency of Dr. EDWARD A. CRANE in the matter, has called our attention to it in the following letter, which we publish in justice to Dr. CRANE, though we are aware that it will be distasteful to him, as it was by his *special direction* that we omitted all allusion to him in our late notice.

Our correspondent says:—"In the REPORTER lately, you have referred to the Paris Exposition, and once mentioned Mr. CRANE as having something to do with it; and another week, in giving an account of what is going from this country, in the medical and sanitary line, you do not mention him at all. I fear you do him injustice.

"The man is Dr. EDWARD A. CRANE, of Providence, R. I. He was getting into a good practice there, and was much esteemed. He was the author of two or three of the State Reports on Registration. He went into the service of the Sanitary Commission, and after two or three years of service at the front, he went to Europe, and the last year of the war was in the office of the Sanitary Commission in Paris.

"As I understand the matter, he came to this country last spring, as the agent of Dr. EVANS, to

get up the portion of the exhibition of which you speak so highly. He succeeded remarkably, and went back well satisfied with the prospects. The valuable models, etc., of which you speak, were built under his personal supervision.

"Unless I am greatly mistaken, the chief credit of that part of the American portion of the exhibition belongs to him, as the agent of Dr. EVANS, who furnished the funds.

"I am confident that American physicians who visit the exhibition will find Dr. CRANE most affable and ready to do all he can to promote their enjoyment, because they are Americans."

"Criminal Abortion and Sympathizing Judges."

In the REPORTER for Jan. 19th, under the above title, we animadverted upon the decision of a judge in the case of a professed abortionist in Providence, R. I., who was dismissed on paying a small fine for committing an assault. We understand that no blame could attach to the judge, as his decision was in accordance with the law, which, when the party pleads guilty, only provides for punishment for assault. We are glad to hear that efforts are being made to have this unrighteous law altered, so that parties guilty of such a crime can have an adequate punishment meted out to them.

Density of Population in New York.

According to recent calculations, as given by the *Tribune*, the average density of population in New York city is equal to 32,000 per square mile; its 1100 acres of parks, and other open spaces, being included in the estimate. This gives to each person a space twelve yards long by eight wide, in which to live and move and have his being. But this breathing space is very unevenly distributed, for while the resident of the XIIth Ward may claim, upon a fair division with his neighbors, five hundred and ninety-six square yards for his individual comfort, the dweller in the hovels and tenement shells of the Xth Ward must be thankful for seventeen yards, and he who worries through a fevered sleep in the XIth Ward can claim but sixteen. These estimates include streets and other open spaces, so that the curious in such matters may judge of the close companionship which is enforced in these localities, where men, women, and children are packed at the rate of one hundred and ninety-six thousand to the square mile. The tract bounded by Division street, the Bowery, East Fourteenth street and the East river, comprising the Xth, XIth, XIIth, and XVIIth Wards, and containing 1.16 square miles, is populated by

196,441 persons, a greater number than were possessed by any city of the Union in 1860, excepting New York, Brooklyn, Philadelphia, and Baltimore. The Xth Ward has more people than Jersey City, Hartford, or Mobile had at that time; the XIth exceeds the limits at that time, of Charleston, Detroit, Pittsburgh, Providence, or San Francisco; while the XVIIth, covering but about one-half square mile, contains more people than did Albany, Louisville, or Washington.

New York Academy of Medicine.

At the last meeting of this Society, Dr. W. C. ROBERTS delivered a eulogium on the Life, Character, and Medical Attainments of that distinguished physician, the late Dr. JOSEPH MATHER SMITH, who, for a long time, was one of the Professors of the College of Physicians and Surgeons.

ERRATUM. In the REPORTER for January 26th, p. 62, second column, line 26, for f.3ss, read f.3ss.

Correspondence.

DOMESTIC.

The Therapeutics of Inhalation.

TO THE PROFESSION:

The undersigned is engaged in preparing for publication a work upon *The Value of Inhalations in the Treatment of Disease*; and he requests the assistance of his professional brethren in supplying clinical material. Contributions will be duly acknowledged, and attention drawn to every source from which instruction may be derived. Negative results, and results apparently or actually unfavorable, will be of peculiar value. Even isolated observations will be of service. Information is more particularly desired as to results from inhalations in sore-throat in all its varieties, croup, diphtheria, oedema of the glottis, asthma, and phthisis. When other medication has been conjoined with inhalation, mention should be made of at least its general character, and an estimate be formed of its value. Where favorable results are reported, an opinion is requested as to the probability of results equally favorable, had inhalation not been resorted to.

Any general information on this subject in possession of the writer, will be placed at the disposal of correspondents intending to contribute their own observations.

For the past few years this subject has attracted a great deal of attention abroad and at home,

and a series of statistical therapeutic results collated from the experience of American physicians in different sections of our country cannot fail to prove of great professional value.

The coöperation of editors of medical journals is respectfully solicited.

Address

J. SOLIS COHEN, M. D.,

1106 Walnut street.

Philadelphia, Feb. 11, 1867.

News and Miscellany.

What is Cod-Liver Oil?

The *Bridgewater Gazette*, a New England journal, says that a physician in that place was recently called to prescribe for a somewhat illiterate old lady, and as cod-liver oil, in his opinion, was the remedy for her complaint, he wrote a prescription for the apothecary to put up, with the Latin formula, "Ol. Jec. Ass.," being an abbreviation of "oleum jecoris asselli," or, in plain English, cod-liver oil. The medicine was procured, taken, and in a few weeks the lady completely recovered her health. A neighbor paid her a visit after her recovery, and, expressing surprise at her improved condition, inquired the secret of so rapid a restoration. "Why," said the old lady, lifting both hands in grateful enthusiasm, "it was that *beautiful* medicine, the oil of *Jackass*, that brought me on my feet again!"

Effects of Pearlash.

If our friends can in any way teach their wives, daughters, or cooks, to keep the pearlash out of their bread, all the yellow people, especially the yellow children, who are supposed to be turned yellow by the fever and ague and bilious fevers, will soon be turned white. It is a great mistake to suppose that the yellow countenances of the West come from bile, when it is the enormous quantity of pearlash eaten in the bread that is reflected through the skin. Bread is the staff of life, it is said—and so it is—but it is the staff of death too in this country. Bad bread kills about as many people here as bad rum. So many people eat poisonous pearlash for bread that they die by inches. Dyspepsia, that great monster disease of the country, that deranges the liver, brings on costiveness, and thus finally kills the human victim, is half the time "pearlash." Here in the East—out of New England—we have driven off the pearlash-saleratus cooks, but not altogether. Pearlash lives here yet in bread, but in cities and towns we have nearly whipped out the murderers. In the distant Western towns, beyond the good hotels of the lakes and rivers, pearlash, under the name of saleratus, is king. It is not any wonder then, that the people of the East turn yellow West, and sicken, not of fever and ague, bilious and congestive fevers, but of pearlash three times a day.—*Journal of Applied Chemistry*.

—CRYSTALLIZATION OF RED PHOSPHORUS has been accomplished, according to the *Journal of the Franklin Institute*, by M. BLONDIOT, by sublimation in an atmosphere of nitrogen. He introduces about two grammes into a small matrass, and then closes the neck hermetically by fusion, which can be done without igniting the phosphorus, provided the matrass be held vertically. Allowing the apparatus to stand, it fills with white vapors, luminous in the dark, which are due to the oxidation of the phosphorus, and in twenty-four hours all the oxygen of the air is absorbed. The phosphorus may then be melted in a water-bath, while the upper part of the matrass is protected from the heat. The phosphorus is deposited in transparent crystals of a cubical form, which in a few days form magnificent arborescences, and shine with the lustre and color of the diamond. This state may be preserved by avoiding the light, but by the sunlight, or even by diffused light, they pass to a brilliant garnet-red color, and resemble rubies. A crop of colorless crystals may be got upon the surface of these.

—DR. J. R. SMITH, of Keetsville, Mo., has been appointed Examining Surgeon.

MARRIED.

CLARKE—COOK.—At the residence of the bride's father, Millwood, Mason co., Ky., Jan. 16, 1867, by Elder E. C. H. Willoughby, Septimus D. Clarke and Miss Marcia A. Cook, eldest daughter of Abraham Cook, M. D., all of the above place.

DONNELLY—HARLEY.—In this city, Feb. 5th, at St. Paul's Church, by Rev. E. C. Donnelly, John F. Donnelly, M. D., and Miss Mary Harley, all of this city.

DUPONT—GILPIN.—On the 5th inst., by the Rev. Willard Hall Hinkley, Dr. Alexis I. Dupont, of Louisville, Ky., and Margareta Dupont, daughter of Chief Justice Gilpin, of Wilmington, Del.

HAMILTON—WHITE.—In New York, Feb. 6, at Madison Square Presbyterian Church, by the Rev. Dr. Adams, Charles H. Hamilton and Carrie J., daughter of S. Pomerooy White, M. D., all of that city.

KERSHNER—SMITH.—In this city, on the 4th inst., by the Rev. Albert Barnes, Edward Kershner, Surgeon U. S. N., and Ella, daughter of Solomon Smith, Esq., of this city.

LYSTER—BRENT.—January 30th, at the Church of the Epiphany, Washington, D. C., by the Rev. J. V. Lewis, H. F. Lyster, M. D., of Detroit, Mich., late Surgeon Fifth Michigan Volunteer Infantry, and Winifred Lee, eldest daughter of the late Thomas Lee Brent, Captain U. S. A.

NICHOLAS—ROBINSON.—On the evening of January 10th, at the residence of the bride's father in Hanover, Ohio, by Rev. Wm. Dalsell, Mr. Alcimus Perry Nicholas and Miss Jeannette, daughter of James Robinson, M. D.

WEBB—MATTHEWS.—Near Cincinnati, Ohio, Jan. 30th, in Glendale, at the residence of Stanley Matthews, Esq., by the Rev. E. P. Wright, Dr. Joseph T. Webb and Annie, youngest daughter of the late Thomas J. Matthews.

DIED.

HUSTON.—In this city, (West Philadelphia,) on the 9th inst., Dr. S. C. Huston.

KISSAM.—In New York, on the 8th inst., Lemuel, son of the late Dr. Benjamin Kissam.

PENNY.—January 28th, 1867, Jesse S. Penny, M. D., of Elizabeth, Pa., in the 52d year of his age, and the 26th of his medical practice.

STILLWELL.—In New York, Feb. 6th, William E. Stillwell, M. D., in the 60th year of his age.

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HORACE WILLIAMS, M. D.

THE PHILADELPHIA SUMMER SCHOOL OF MEDICINE will begin its third term on March 1st, 1887, and students may enjoy its privileges without cessation until October.

The regular course of *Examinations* and *Lectures* will be given during April, May, June, and September, upon

ANATOMY,	PHYSIOLOGY.
SURGERY,	OBSTETRICS,
CHEMISTRY,	MATERIA MEDICA,
PRACTICE OF MEDICINE.	

The attention of the profession and of students is invited to the importance of systematic study and of clinical instruction during the summer as well as during the winter, in order to obtain a good medical education in the short time usually required, and to our plan of combining daily Recitations with Lectures and Reading of Text-Books. The object of this School is to teach medicine thoroughly, and to make use of every method that is really valuable.

CLASS-ROOMS contain a cabinet of *Materia Medica*, Bones, Bandages, Manikins, Illustrations, Text-Books, Microscope, Chemical Reagents, etc., and in them students may study, practice bandaging, and conduct microscopical and chemical examinations.

SURGERY.—A course of Lectures will be delivered by H. LENOX HODGE, M. D., on the History, Causes, Symptoms, Pathology, and Treatment of Surgical Diseases and Injuries, and upon the Employment of the Microscope, Ophthalmoscope, Otoscope, Laryngoscope, Endoscope, Percussion, Auscultation, and the Thermometer in recognizing such disorders.

PERCUSSION AND AUSCULTATION in Diseases of the Lungs and Heart will be taught by JAMES H. HUTCHINSON, M. D., by Lectures and by the Clinical Examination of patients.

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WINTER COURSE OF EXAMINATIONS will begin with the Lectures at the University of Pennsylvania in October, and will continue till the close of the session.

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